

CLAIMS

1. Auto body roof comprising at least one steel frame and a skin part made of an aluminium alloy attached to the steel part before painting, characterised in that the aluminium part is made from a sheet treated by solution, quenching and age-hardening at room temperature, with the following composition:
 - 5 Si: 0.7-1.3, Fe < 0.5, Cu: 0.5-1.1, Mn: 0.4-1.0, Mg: 0.6-1.2, Zn < 0.7, Cr < 0.25, Zr+Ti < 0.20, other elements < 0.05 each and < 0.15 total, remainder aluminium, having, after solution treatment, quenching and age-hardening for three weeks at room temperature, a yield strength $R_{0.2}$ of less than 170 MPa, and preferably 160 MPa.
 - 10 2. Body roof according to claim 1, characterised in that its high temperature yield strength, at the beginning of the paint baking heat treatment (after the temperature rise), of the skin part is greater than 160 MPa.
 - 15 3. Body roof according to claim 1, characterised in that its high temperature yield strength, at the end of the paint baking heat treatment, of the skin part is greater than 200 MPa.
 4. Body roof according to one of claims 1 to 3, characterised in that its low temperature yield strength, after paint baking, of the skin part is greater than 220 MPa.
 5. Body roof according to one of claims 1 to 4, characterised in that the 20 alloy of the skin part contains 0.7 to 1% Si.
 6. Body roof according to one of claims 1 to 5, characterised in that the alloy of the skin part contains 0.8 to 1.1% Cu.
 7. Body roof according to one of claims 1 to 6, characterised in that the alloy of the skin part contains 0.45 to 0.6% Mn.
 - 25 8. Body roof according to one of claims 1 to 7, characterised in that the alloy of the skin part contains 0.6 to 0.9% Mg.
 9. Body roof according to one of claims 1 to 8, characterised in that the alloy of the skin part contains 0.1 to 0.7% Zn.

10. Body roof according to claim 9, characterised in that the alloy of the skin part contains 0.15 to 0.3% Zn.